

Claims

1. A closure mechanism for a beverage preparation machine comprising a fixed lower part and an upper part
5 rotatable relative to the lower part, the upper part being moveable from an open position, in which the upper part is disengaged from the lower part, and a closed position, in which the upper part is engaged with the lower part, the closure mechanism further
10 comprising a clamping lever operable to retain the upper part in the closed position, wherein the clamping lever comprises a first member being pivotably connected at a first pivot to the upper part and a second member having a first end pivotable about a
15 second pivot, an end of the first member and a second end of the second member being pivotably connected together at a third pivot such that the clamping lever has first and second positions of stability, wherein on operation of the clamping lever to move the upper part
20 from the open position to the closed position the clamping lever moves from the first to the second position of stability.
2. A closure mechanism as claimed in 1, wherein the
25 clamping lever comprises at least one hook member for engaging a detent on the lower part.
3. A closure mechanism as claimed in claim 2, wherein in
30 the first position of stability the third pivot lies on a first side of a datum line joining the first and second pivot points.

4. A closure mechanism as claimed in claim 3, wherein in
the second position of stability the third pivot lies
on a second side of a datum line joining the first and
5 second pivot points.
5. A closure mechanism as claimed in claim 4, wherein the
first side of the datum line is nearest the fixed lower
part and the second side of the datum line is furthest
10 from the fixed lower part.
6. A closure mechanism as claimed in claim 5 wherein the
first end of the second member is pivotally connected
to the lower part.
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7. A closure mechanism as claimed in claim 6 wherein the
second member comprises a reciprocal member.
8. A closure mechanism as claimed in claim 7 wherein the
20 reciprocal member comprises a cylinder, a stem received
in said cylinder and a resilient sleeve for biasing
said stem into an extended configuration.
9. A closure mechanism as claimed in claim 8 wherein
25 movement of the clamping lever from the first to the
second position of stability is accommodated by
deformation of the resilient sleeve.
10. A closure mechanism as claimed in claim 9, wherein the
30 first member of the clamping lever comprises a U-shaped

arm extending round a front side of the beverage preparation machine.

- 5 11. A closure mechanism as claimed in claim 10, wherein the clamping mechanism comprises two second members, one on each side of the beverage preparation machine.
- 10 12. A closure mechanism as claimed in claim 11, wherein the closure mechanism further comprises a cartridge holder interposed between the lower part and the upper part and being rotatable relative to the lower part and the upper part.
- 15 13. A closure mechanism as claimed in claim 12, wherein rotation of the upper part towards the lower part causes the upper part to engage the cartridge holder and to move the cartridge holder into contact with the lower part and at the same time to cause, in use, inlet piercing means and the outlet piercing means provided
20 in the lower part to pierce a cartridge received in the cartridge holder.